

(d) For vessels to which no load line has been assigned but the draft of which is restricted under any Coast Guard requirement, the maximum draft permitted under the restriction; and

(e) For other vessels, 75 per cent of the molded depth.

Net tonnage or *NT* means tonnage determined under § 69.63.

Passenger means a person on board a vessel other than—

(a) The master, a member of the crew, or other person employed or engaged in any capacity in the business of the vessel; and

(b) A child under one year of age.

Registered breadth means the maximum breadth of a vessel measured amidships to the molded line of the frame in a vessel with a metal shell and to the outer surface of the hull in all other vessels.

Registered length means either 96 per cent of the length on a waterline at 85 per cent of the least molded depth measured from the top of the flat keel or the length from the fore side of the stem to the axis of the rudder stock on that waterline, whichever is greater. In vessels designed with a rake of keel, this length is measured on a waterline parallel to the design waterline.

Upper deck means the uppermost complete deck exposed to weather and sea, which has permanent means of weathertight closing of all openings in the weather part of the deck, and below which all openings in the sides of the vessel are fitted with permanent means of watertight closing.

Weathertight means secure against penetration of water into the vessel in any sea condition.

§ 69.55 Application for measurement services.

Applications for measurement under this subpart must include the following information and plans:

- (a) Type of vessel.
- (b) Vessel's name and official number (if assigned).
- (c) Builder's name and the vessel hull number assigned by builder.
- (d) Place and year built.
- (e) Date keel was laid.
- (f) Overall length, breadth, and depth of vessel.

(g) Lines plan.

(h) Booklet of offsets at stations.

(i) Capacity plans for tanks and cargo compartments.

(j) Hydrostatic curves.

(k) Construction plans showing measurements and scantlings of deck structures, hatches, appendages, recesses, and other enclosed spaces.

(l) Arrangement plans.

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§ 69.57 Gross tonnage.

Gross tonnage (GT) is determined by the following formula $GT = K_1 V$, in which V = total volume of all enclosed spaces in cubic meters and $K_1 = 0.2 + 0.02 \log_{10} V$.

§ 69.59 Enclosed spaces.

Enclosed space means a space which is bounded by the vessel's hull, by fixed or portable partitions or bulkheads, or by decks or coverings other than permanent or movable awnings. No break in a deck, nor any opening in the vessel's hull, in a deck or in a covering of a space, or in the partitions or bulkheads of a space, nor the absence of a partition or bulkhead precludes the space from being included in the enclosed space.

§ 69.61 Excluded spaces.

(a) *Excluded space* means an enclosed space which is excluded from volume (V) in calculating gross tonnage. Except as under paragraph (g) of this section, this section lists the excluded spaces.

(b) A space that is within a structure and that is opposite an end opening extending from deck to deck (except for a curtain plate of a height not exceeding by more than one inch the depth of the adjoining deck beams) and having a breadth equal to or greater than 90 per cent of the breadth of the deck at the line of the opening is an excluded space, subject to the following:

- (1) Only the space between the actual end opening and a line drawn parallel to the line or face of the opening at a distance from the opening equal to one-half of the breadth of the deck at the line of the opening is excluded. (See § 69.75, figure 1.)

(2) If, because of any arrangement (except convergence of the outside plating as shown in § 69.75, figure 3), the breadth of the space is less than 90 percent of the breadth of the deck, only the space between the line of the opening and a parallel line drawn through the point where the athwartship breadth of the space is equal to 90 percent or less of the breadth of the deck is excluded. (See § 69.75, figures 2 and 4.)

(3) When any two spaces, either of which is excluded under paragraphs (b)(1) or (b)(2) of this section, are separated by an area that is completely open except for bulwarks or open rails, these two spaces must not be excluded if the separation between the two spaces is less than the least half breadth of the deck in way of the separation. (See § 69.75, figures 5 and 6.)

(4) When the deck at the line of an opening has rounded gunwales, the breadth of the deck is the distance between the tangent points indicated in § 69.75, figure 11.

(c) A space that is open to the weather and that is under an overhead deck covering with no connection on the space's exposed sides between the covering and the deck other than the stanchions necessary for the covering's support is an excluded space. An open rail or bulwark fitted at the vessel's side does not disqualify the space from being an excluded space if the height between the top of the rail or bulwark and the overhead structure or curtain plate (if fitted) is not less than 2.5 feet or one-third of the height of the space, whichever is greater. (See § 69.75, figure 7.)

(d) A space in a side-to-side structure directly in way of opposite side openings not less than 2.5 feet in height or one-third of the height of the structure, whichever is greater, is an excluded space. If the opening is only on one side of the structure, the space to be excluded is limited inboard from the opening to a maximum of one-half of the breadth of the deck in way of the opening. (See § 69.75, figure 8.)

(e) A space in a structure immediately below an uncovered opening in the deck overhead is an excluded space, if the opening is exposed to the weather and the space to be excluded is lim-

ited to the area of the opening. (See § 69.75, figure 9.)

(f) A recess in the boundary bulkhead of a structure which is exposed to the weather and which has an opening that extends from deck to deck without a means of closing is an excluded space, if the interior width of the space is not greater than the width of the opening and extension of the space into the structure is not greater than twice the width of the opening. (See § 69.75, figure 10.)

(g) Any space described in paragraphs (b) through (f) of this section which fulfills at least one of the following conditions is not an excluded space:

(1) The space is fitted with shelves or other means designed for securing cargo or stores.

(2) The opening that would otherwise permit the space to be excluded space is fitted with a means of closure.

(3) Other features of the space make it possible for the space to be closed.

§ 69.63 Net tonnage.

Net tonnage (NT) is determined by the formula:

$$NT = K_2 V_c \left(\frac{4d}{3D} \right)^2 + K_3 \left(N_1 + \frac{N_2}{10} \right),$$

in which:

V_c = total volume of cargo spaces in cubic meters.

$K_2 = 0.2 + 0.02 \log_{10} V_c$.

$$K_3 = 1.25 \left(\frac{GT + 10,000}{10,000} \right)$$

D = molded depth amidships in meters, as "molded depth" is defined in § 69.53.

d = molded draft amidships in meters, as "molded draft" is defined in § 69.53.

N_1 = number of passengers in cabins with not more than eight berths, as "passenger" is defined in § 69.53.

N_2 = number of other passengers, as "passenger" is defined in § 69.53.

GT = gross tonnage as determined under § 69.57.

N_1 plus N_2 must equal the total number of passengers the vessel is permitted to carry as indicated on the ship's Passenger Certificate. If N_1 plus N_2 is less than 13, both N_1 and N_2 are zero.